

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of)
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OWERFELDT et al.)
)
Application No. 09/970,724)
)
Filed: October 3, 2001)
)
For: REAL TIME TRANSPORT PROTOCOL)
CONNECTOR)
)

Examiner: Mr. Jeffrey R. Swearingen
Art Unit: 2145
Docket No. SUNMP025
Date: November 15, 2006

CERTIFICATE OF E-FILING

I hereby certify that this correspondence is being
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2006.

Signed: 

Kenneth C. Brooks

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT

Dear Sir:

The present communication is in response to the Final Office action mailed September 15, 2006.

Amendments to the claims are reflected in the Listing of Claims, which begins on page 2 of this paper.

Remarks/Arguments begin on page 6 of this paper.

This listing of claims will replace all prior versions, and Listings of Claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A transport-independent real-time transport protocol (RTP) stack including computer readable instructions stored on ~~to be executed by~~ a computer system, the RTP stack comprising:

a transport-independent tasks module, wherein the transport-independent tasks module is configured to perform tasks that are independent of a first underlying transport layer having a first transport layer type; and

a connector ~~module~~ in communication with the transport-independent module, wherein the connector ~~module~~ includes methods that are dependent on the first underlying transport layer ~~and produces with said transport-independent tasks module and said connector configured to communicate~~ RTCP data therebetween independent of said first underlying transport layer, with said connector being configured to communicate said RTCP data to said first transport layer dependent upon communication protocols associated with said first transport layer[[,]]

~~wherein a new connector module is configured to be generated so as to adapt the RTP stack to a second underlying transport layer having a different transport layer type, and further wherein the transport-independent tasks module is configured to communicate with the new connector module in the same manner as the connector module.~~

Claim 2 (Currently Amended): The transport-independent RTP stack as recited in claim 1, wherein the connector ~~module~~ includes data input and output methods.

Claim 3 (Previously Presented): The transport-independent RTP stack as recited in claim 2, wherein the data input and output methods are utilized by the transport-independent tasks module to communicate with the first underlying transport layer.

Claim 4 (Previously Presented): The transport-independent RTP stack as recited in claim 3, wherein the data input and output methods include an RTP output stream method that returns an RTP output stream to a calling method.

Claim 5 (Previously Presented): The transport-independent RTP stack as recited in claim 4, wherein the data input and output methods include an RTP input stream method that returns an RTP input stream to a calling method.

Claim 6 (Previously Presented): The transport-independent RTP stack as recited in claim 3, wherein the data input and output methods include a real-time transport control protocol (RTCP) output stream method that returns an RTCP output stream to a calling method.

Claim 7 (Previously Presented): The transport-independent RTP stack as recited in claim 6, wherein the data input and output methods include an RTCP input stream method that returns an RTCP input stream to a calling method.

Claim 8 (Currently Amended): A real-time transport protocol (RTP) connector ~~module including computer readable instructions stored on to be executed by~~ a computer system, the RTP connector ~~module~~ comprising:

- an RTP output stream method that returns an RTP output stream to a calling method;
- an RTP input stream method that returns an RTP input stream to a calling method;
- a real-time transport control protocol (RTCP) output stream method that returns an RTCP output stream to a calling method; and

- an RTCP input stream method that returns an RTCP input stream to a calling method, with said RTCP output stream method transmitting and receiving RTCP data concerning an underlying transport layer independent of protocols associated with said underlying transport layer

~~wherein a new RTP connector module is configured to be generated for each underlying transport layer having a different transport layer type so as to adapt an RTP stack to the corresponding underlying transport layer.~~

Claim 9 (Currently Amended): The RTP connector ~~module~~ as recited in claim 8, wherein the RTP connector ~~module~~ generates transport-independent input/output streams.

Claim 10 (Currently Amended): The RTP connector ~~module~~ as recited in claim 9, wherein the transport input/output streams provide access to a particular type of underlying transport layer.

Claim 11 (Currently Amended): The RTP connector ~~module~~ as recited in claim 10, wherein the RTP connector ~~module~~ is in communication with a transport-independent tasks module, wherein the transport-independent tasks module includes methods that are independent of the underlying transport layer.

Claim 12 (Currently Amended): The RTP connector ~~module~~ as recited in claim 11, wherein the transport-independent tasks module processes the transport-independent input/output streams using transport-independent operations.

Claim 13 (Currently Amended): A transport-independent real-time transport protocol (RTP) stack including computer readable instructions stored on to be executed by a computer system, the RTP stack comprising:

a transport-independent tasks module having an RTP transmitter module and an RTP receiver module, wherein the RTP transmitter module and the RTP receiver module are independent of a first underlying transport layer having a first transport layer type; and

a connector ~~module~~ having an RTP output stream method in communication with the RTP transmitter module, and an RTP input stream method in communication with the RTP receiver module, wherein the RTP output stream method and the RTP input stream provide access to the first underlying transport layer,

wherein a new connector ~~module~~ is configured ~~to be generated so as~~ to adapt the RTP stack to a second underlying transport layer having a different transport layer type by an initialization method.

Claim 14 (Previously Presented): The transport-independent RTP stack as recited in claim 13, wherein the RTP output stream method returns an RTP output stream to the RTP transmitter module.

Claim 15 (Previously Presented): The transport-independent RTP stack as recited in claim 14, wherein the RTP input stream method returns an RTP input stream to the RTP receiver module.

Claim 16 (Previously Presented): The transport-independent RTP stack as recited in claim 13, wherein the transport-independent tasks module further includes a real-time transport control protocol (RTCP) transmitter module and an RTCP receiver module.

Claim 17 (Previously Presented): The transport-independent RTP stack as recited in claim 16, wherein the RTCP transmitter module and the RTCP receiver module are independent of the first underlying transport layer.

Claim 18 (Currently Amended): The transport-independent RTP stack as recited in claim 17, wherein the connector ~~module~~ further includes an RTCP output stream method that returns an RTCP output stream to the RTCP transmitter module.

Claim 19 (Currently Amended): The transport-independent RTP stack as recited in claim 18, wherein the connector ~~module~~ further includes an RTCP input stream method that returns an RTCP input stream to the RTCP receiver module.

Claim 20 (Currently Amended): The transport-independent RTP stack as recited in claim 18, wherein the new connector ~~module~~ can operate utilizing the second underlying transport without modifying the transport-independent tasks module.

Remarks/Arguments

A. Rejections under 35 U.S.C. § 101:

1. Introduction

In the Office action, claims 1-20 were rejected pursuant to 35 USC section 101 as allegedly being directed to non-statutory subject matter. The reasoning in support of these rejections is wholly without merit and contradicts established judicial precedent.

2. Maintained Rejection

Specifically, the rejections pursuant to 35 USC section 101 set forth in the previous Office action were maintained, because “[t]he stack module are not yet executed by the computer system, and are therefore intangible”. Firstly, tangibility of claimed subject matter was never a requirement for patentable subject matter under 35 USC section 101. Rather, as set forth in *Diamond v. Diehr*, 450 U.S. 175 (1981), the Court made clear that it was the result that was to be examined in a computer process claim that incorporated algorithms. See *id.* at 192. The guidelines set forth in the MPEP are commensurate with *Diehr* wherein it states that “[t]he claimed invention as a whole must produce a ‘useful, concrete and tangible’ result to have a practical application.” (quotation in the original) MPEP § 2101 II. A. ¶2. Therefore, it is the result to which one must look for the tangibility requirement and not the underlying process.

In the instant matter, Applicants submit that the requisite tangibility with respect to the result is present, because the claims are directed to a process that facilitates streaming of video on a computer system. Therefore, based upon the foregoing, Applicants respectfully contend that the claims pending define a process that is statutory subject matter as defined by 35 USC section 101.

3. New Rejections

In the Office action claims 1-20 were rejected under 35 USC section 101 as allegedly failing to recite statutory subject matter. The claims have been amended to indicate that the transport-independent real-time transport is computer readable instructions stored on a computer. Applicants respectfully contend, therefore, that the rejections under 35 USC section 101 have been traversed.

B. Rejections Pursuant to 35 USC § 112, First Paragraph

1. Items 2 and 3

It is unclear in the Office whether, in items 3 and 4 of the Response to Arguments section, maintained rejection pursuant to 35 USC section 112, first paragraph set forth in the earlier action, because item 2 makes clear that these rejection have been overcome. Item 2 contends that there is no support in the written specification for the configuration and generation of a new RTP connector as amended. Item 3 continues to contend that “[t]he invention does not automatically adapt for different types of transport layers as currently claimed.” The undersigned has reviewed the claims and performed a text search and cannot find any language in the claims that concerns “automatically” doing anything. As a result, Applicants believe the contentions set forth in items 2 and 3 is based upon the mistaken belief that the claims recite subject matter that they do not. It is submitted that limitations are being read into the claims by the Office, which is wholly improper.

2. Items 6 and 7

It is unclear in the Office whether, in items 6 and 7 of the Response to Arguments section, maintained are rejection pursuant to 35 USC section 112, first paragraph set forth in the earlier action, because item 2 makes clear that these rejections have been overcome. Item 6 alleges that the Applicant failed to provide a clear definition of “connector module.” Item 7 alleges that “[a]ll of Applicant’s arguments involve the nebulous “connector module”, which Applicant at no point defined in the specification. Were earlier rejection overcome, then it appears that item 7 is improperly couched in terms of response to arguments and should be set forth as a new rejection pursuant to 35 USC section 112, first paragraph. If this is the case, then the Final is improper, because this rejection was not necessitated by the previous amendment. Nonetheless, Applicants address this statement as being a new rejection pursuant to 35 USC section 112, first paragraph.

Applicants submit that the phrase connector module is not specifically recited in the Detailed Description of the Invention. However, the term “connector” is used throughout the written specification and refers to item 502 in Fig. 5 and to avoid further confusion on the Office’s part, the claims have been amended to facilitate the Office’s recognition of the support for the claimed subject matter in the written specification. For example, in the text bridging lines 5-10 on page 14, the connectors 502 is described as employing the Java language to “provide a . . . connector 502 for use with a particular type of transport, for example, an IP-based network via UDP datagram packets.” It is clear that the connector is formed from a computer programming language. Moreover, in the text bridging lines 9-15 on page 11, the connector 502 is described as including “transport-dependent tasks utilized during RTP

streaming via the transport layer 504. These transport-dependent tasks can include transmission tasks, data receiving tasks, and other transport-dependent tasks as will be apparent to those skilled in the art.” Nonetheless, it is submitted that as a rejection pursuant to 35 USC section 112, first paragraph, sufficient factual analysis has not been provided to support this rejection. See MPEP § 2106.02. Based upon the foregoing Applicants respectfully contend that this rejection has been traversed.

3. New Rejections.

a. Impossibility Allegation

In the Office has rejected claims 1-20 under 35 U.S.C. § 112, first paragraph as failing comply with the enablement requirement. Specifically, it was alleged that the phrase a new RTP connector that is configured to be generated is non-enabling, because it is impossible to configure to generate. Applicants traverse this rejection, because it is Applicants’ position that the phrase may be indefinite, but certain enabling. Nonetheless, amendments have been made to change to phraseology so as to overcome the alleged impossibility allegation set forth in the Office action.

b. Failure to provide support

In the Office action it was alleged that “[n]o support existed in the originally filed specification for an RTP connector module generated by the system.” Applicants cannot identify any relevance to this statement, because Applicants cannot find any claim pending before the Office that indicates an RTP connector module being generated by the system. Therefore, Applicant contends that this rejection is without merit. Moreover, Applicants respectfully point out that the Office makes an admission on page 2, ¶ 2 of the Office action that the “new RPT connector” is present in the application. Applicants also thank the Office for providing the page and line numbers in the specification in which the support for the limitation is found. For reference, attention is drawn to the text bridging lines 5-10 of page 14. Based upon the foregoing, Applicants respectfully contend that this rejection has been traversed.

The Applicants respectfully traverse the Office’s interpretations that the claims are “for a connector module which converts types to types.” Rather, it is respectfully submitted that, among other features, the connector module of the claimed invention can adapt the RTP stack to any type of transport layer. Nonetheless, to clarify the claimed invention and to overcome the Office’s rejections under 35 U.S.C. § 112, first paragraph, the Applicants have amended independent claims 1, 8, and 13. For instance, as amended, independent claims 1 and 13 recite that a new connector module is configured to be generated so as to adapt the RTP stack to a second underlying transport layer having a different transport layer type. As amended,

independent claim 8 recites that a new RTP connector module is configured to be generated for each underlying transport layer having a different transport layer type so as to adapt the RTP stack to the corresponding underlying transport layer.

C. Rejections under 35 U.S.C. § 103

1. Introduction

The Office has rejected claims 1-20 under 35 U.S.C. § 103(a) as being anticipated by RFC 1889-RTP: A Transport Protocol for Real-Time Applications, January 1996 (hereinafter RFC 1889) in view of the United States Patent No. 6,175,789 to Beckert et al. (Beckert). It is respectfully submitted that the combination of the cited prior art fails to raise a *prima facie* case of obviousness against the subject matter defined in the claimed invention for several reasons.

2. Claim 1

Claim 1 defines a transport-independent real-time transport protocol (RTP) stack that includes, in pertinent part, a transport-independent tasks module and a connector in communication with the transport-independent module, wherein the connector includes methods that are dependent on the first underlying transport with the transport-independent tasks module and the connector configured to communicate RTCP data therebetween independent of the first underlying transport layer, with the connector being configured to communicate the RTCP data to the first transport layer dependent upon communication protocols associated with the first transport layer. Applicants advocate this configuration in order to ease the writing of applications that facilitate use of the RTP for streaming of data corresponding to a transport layer. (See page 10, line 23 to page 11, line 3). Specifically, it was recognized that by minimizing the generating a connector employing object oriented programming, the methods associated with a transport layer could be easily implemented and with minimal writing of code. (See page 14, line 5-10.) This results from the connector being defined as a class, which facilitates generation of additional connectors for different transport layers by inheriting the definition of the class. (See page 14, lines 1-4). As a result, the methods of the new connector may be easily implemented by minimizing the methods associated therewith that need to be generated. (See page 14, lines 21-22). The cited prior art is completely silent with respect to these features. Therefore, Applicants respectfully contend that claim 1 defines an invention suitable for patent protection.

2. Claim 8

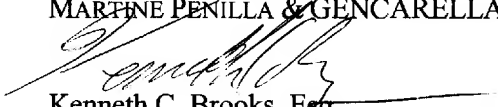
Claim 8 defines a real-time transport protocol (RTP) connector that includes, in pertinent part, an RTCP input stream method that returns an RTCP input stream to a calling method, with the RTCP output stream method transmitting and receiving RTCP data concerning an underlying transport layer independent of protocols associated with the underlying transport layer. The cited prior art is completely silent with respect to these features. Therefore, Applicants respectfully contend that claim 8 defines an invention suitable for patent protection.

3. Claim 13

Claim 13 has been amended to define a transport-independent real-time transport protocol (RTP) stack that includes, in pertinent part, a new connector is configured to adapt the RTP stack to a second underlying transport layer having a different transport layer type by an initialization method. Applicants advocate this configuration in order to ease the writing of applications that facilitate use of the RTP for streaming of data corresponding to a transport layer. (See page 10, line 23 to page 11, line 3). Specifically, it was recognized that by generating a connector employing object oriented programming, the methods associated with a transport layer could be easily implemented and with minimal writing of code. (See page 14, line 5-10.) This results from the connector being defined as a class, which facilitates generation of additional connectors for different transport layers by inheriting the definition of the class. (See page 14, lines 1-4). As a result, the methods of the new connector may be easily implemented by an initialization method. The cited prior art is completely silent with respect to these features. Therefore, Applicants respectfully contend that claim 13 defines an invention suitable for patent protection.

In view of the foregoing, the Applicants respectfully request reconsideration and reexamination of claims 1-20, and submit that all of the pending claims are in condition for allowance. Accordingly, a Notice of Allowance is respectfully requested. If the Examiner has any questions concerning the present Amendment, the Examiner is kindly requested to contact the undersigned at (408) 774-6910. If any additional fees are due in connection with filing this Amendment, the Commissioner is also authorized to charge Deposit Account No. 50-0805 (Order No. SUNMP025). A duplicate copy of the transmittal is enclosed for this purpose.

Respectfully submitted,
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